

Addressing the challenges of sustainable cotton production under competition in China

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This speech provides firstly a quick overview of agriculture in China, and then it shares a brief analysis of cotton production under restructuring in a context where the strengthening of agriculture has gained momentum. The very recent measures targeted at strengthening agriculture are assessed through the prism of sustainability, namely the three pillars of social, environmental and economic aspects commonly acknowledged. The contemplated actions to enhance agriculture, with implications for cotton production, look like a set of challenges whose chances of being successfully overcome are appraised through a retrospective analysis of a few achievements related to former challenges.

In China, agriculture lacks attractiveness for several decades since economy has been liberalized. Rural families on tiny farms lag behind in terms of income; they suffer from a continuously growing income gap in spite of an increasing share of wages through off-farm activities. Families have been abandoning farming, making land available to increase the size of remaining farms while stronger labor constraint implies that the mechanization of more cultivation practices has become more crucial than ever.

Cotton production, especially in the two traditional production regions of Yellow River Valley and Yangtze River Valley, is particularly touched by the described evolution of agriculture. It has become less and less attractive in front of competing crops, notably cereal crops, for lack of governmental support, for increased costs of labour, of fertilizers as well as of insecticides in spite of, or because of almost twenty years of Bt cotton use.

Agricultural policy measures elaborated in March 2016 can be related to each of the three sustainability pillars. More precisely, about half of the measures correspond to one of the three social, environmental and economic dimensions, and the other half falls in between two dimensions.

Retrospective analysis of a few innovations like China-specific technique of transplanting, the widespread use of hybrid cultivars, the evolution of insecticide spraying devices, the development of cultivation machines adapted to moderate scale farming (although breakthrough achievement in mechanized harvesting has yet to come) point out a successful process of recurrent technology development based on a huge scientific and technical network motivated by an important potential market.

In the last decades, China has demonstrated its capabilities to overcome technical challenges, but many challenges ahead, related to measures recently announced fall out of the technical sphere (like decentralization of land contract, insurance, credit guaranty...). Organizational and institutional innovations are required; they call upon successful interaction between producers and other stakeholders, be they public or private, and which should differ from top-down and administratively-oriented procedures.